

ODONATA FROM SOUTH-EAST ANATOLIA (TURKEY) COLLECTED IN SPRING 1988

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Abstract — 35 spp. from various localities in S and SE Anatolia are reported. The Anatolian diagonal is the range boundary of *Platycnemis kervillei* towards the North and West. *Ischnura intermedia* is rediscovered. A melanic population of *Coenagrion pulchellum* is recorded. *Trithemis arteriosa* is an addition to the dragonfly fauna of Turkey.

Introduction

In spite of a recent increase in our knowledge of the Odonata from Turkey (DUMONT, 1977; DEMIRSOY, 1982; SCHNEIDER, 1985a, 1985b, 1986), there is still a dearth of detailed distributional data on the South and South-East of Anatolia, particularly in springtime. This prompted the present investigation, which consisted of a collecting field-trip between May 18th and May 24th, 1988. As South and South-East Anatolia, we define these areas East and South of the so-called Anatolian diagonal, a mountain barrier which runs obliquely from the

Taurus Chain in the South, above the Adana peninsula, to the Great Caucasus in the North-East. Of the 35 localities mentioned hereafter, only no. 35 is situated North of the diagonal, while no. 34 is roughly on the diagonal.

List of localities (Fig. 1)

- (1) River at Imamoglu, 28 km S of Kozan, 10-V-1988.
- (2) Brook, 15 km S of Kozan, 10-V-1988.
- (3) Pond overgrown with *Ranunculus* sp. at Kabaagaç, near crossroads Elbistan-Afsin.
- (4) Ditch along road Pazarçik-Maras, 25 km from Maras, 12-V-1988.
- (5) Ditch at crossroads Gaziantep-İslahiye (İçerisu Köyü), 13-V-1988.
- (6) Sakarcalı by Kadirli, 13-V-1988.
- (7) Andirin river at mouth of brooklet, 14-V-1988.
- (8) Karatas: stagnant dead arm of River, 15-V-1988.

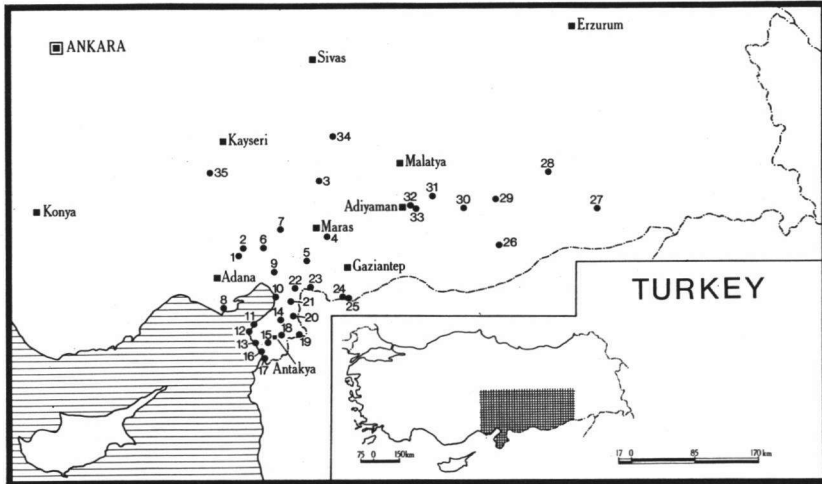


Fig. 1. Collecting localities in South-East Anatolia. [For explanations, see text]

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| (9) Osmanyek, 15-V-1988. | (24) Streamlet about 15 km F of Kilis, on road to Elbeyli (tributary of Kuveyk or Halep Cayi), 17-V-1988. |
| (10) Sariseki, 15-V-1988. | (25) Halep Cayi (Wadi Kuveyk) at intersection with road Kilis-Elbeyli, 17-V-1988. |
| (11) Uluçınar, streamlet, 15-V-1988. | (26) Viranşehir, stream, 18-V-1988. |
| (12) Artuz, streamlet, 15-V-1988. | (27) Gerçus, small river (just across divide Firat/Dicle, in Dicle catchment), 18-V-1988. |
| (13) Rivulet at end of dirt track towards Samandag, ca 10 km N of Samandag, 15-V-1988. | (28) Rivulet E of Bağdere, on road to Diyarbakir, 50 km E of Diyarbakir, 18-V-1988. |
| (14) Crossroads Iskenderun-Kirikhan, 15-V-1988. | (29) Halfway Siverek-Diyarbakir, 19-V-1988. |
| (15) Roadside streamlet ca 8 km S of Antakya, on road to Samandag. | (30) 5 km W of Siverek, 19-V-1988. |
| (16) Orontes river (Asi) at Samandag, 16-V-1988. | (31) Narince (at foot of Nemrut Dagi), marsh, 19-V-1988. |
| (17) Leylekli near Yeditepe (Yayladagi), 16-V-1988. | (32) Ceuzdere river, 18 km E of Adiyaman, 20-V-1988. |
| (18) Affluent of the Asi Nehri, about 200 m from junction at Nalica, ca 5 km NE of Antakya, on road to Reyhanli: 16-V-1988. | (33) Kalburcu Deresi, stream ca 25 km E of Adiyaman, 20-V-1988 (type loc. of <i>I. intermedia</i>). |
| (19) Reyhanli, affluent of Burç deresi, 16-V-1988. | (34) Running water at Gürün, 23-V-1988. |
| (20) Muratbeyli near Muratpasa, system of irrigation canals in bed of former Amik Gölü, 16-V-1988. | (35) Sultansazlık (Yay Gölü), 23-V-1988. |
| (21) Streamlet halfway between Kirikhan and Hassa, 17-V-1988. | |
| (22) Streamlet 3 km N of Hassa, 17-V-1988. | |
| (23) Ponds, ca 10 km E of crossroads Hassa-Kilis, 17-V-1988. | |

List of species

The numbers behind each species refer to the locality list given above.

Euphaeidae:

- (1) *Epallage fatime* (Charpentier): loc. 7, 13, 17, 18, 19, 21, 24.

Calopterygidae:

- (2) *Calopteryx splendens intermedia* Selys (including hybrids with *C. s. hyalina* (Martin)): loc. 1, 6, 7, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25.

Lestidae:

- (3) *Sympetma fusca* (Vander Linden): loc. 3.
 (4) *Lestes viridis parvidens* Artobolewski: loc. 6 (freshly emerged male).
 (5) *L. macrostigma* (Eversmann): loc. 7 (male).
 (6) *L. barbarus* (Fabricius): loc. 31, 33.

Platycnemididae:

- (7) *Platycnemis kervillei* (Martin): loc. 2 (few), 4 (few), 5 (common), 7 (few), 11 (common), 12 (common), 15 (common), 17 (common), 19 (common), 20 (common), 21 (common), 24 (extremely common), 25 (extremely common), 26 (extremely common), 27 (few), 28 (common), 29 (few), 30 (extremely common), 32 (common).
 (8) *P. dealbata* Selys & Hagen: loc. 1, 4, 5, 6, 7, 9, 10, 16, 17, 18, 20, 26. Alone or in cohabitation with *P. kervillei*, but never abundant at this time of the year.

Coenagrionidae:

- (9) *Coenagrion pulchellum* (Vander Linden): loc. 35 (abundant, and only species present; melanitic population).
 (10) *C. ornatum* (Selys & Hagen): loc. 4, 27, 28, 29, 30, 31, 34.
 (11) *C. syriacum* (Morton): loc. 4, 6, 7, 8, 20.
 (12) *Cercion l. lindeni* (Selys): loc. 25, 26, 29, 30.
 (13) *Erythromma viridulum orientale* Schmidt: loc. 8 (common), 23.
 (14) *Ischnura elegans ebneri* Schmidt: loc. 1, 3, 4, 5, 6, 7, 8, 10, 11, 18, 19, 20, 28, 30, 31, 32, 33, 34.
 (15) *I. pumilio* (Charpentier): loc. 4, 7, 18, 21, 27, 29, 31.
 (16) *I. intermedia* Dumont: loc. 32 (2 ♀).

Aeshnidae:

- (17) *Caliaeschna microstigma* Schneider: loc. 9 (♂), 17 (♀).
 (18) *Anax imperator* Leach: loc. 8, 10, 23.

- (19) *A. parthenope* Selys: loc. 6.

Gomphidae:

- (20) *Gomphus davidi* Selys: loc. 18, 19, 21.
 (21) *Onychogomphus forcipatus albotibialis* Schmidt: loc. 12 (♀).

Libellulidae:

- (22) *Libellula depressa* Linnaeus: loc. 3, 34 (freshly emerged).
 (23) *L. pontica* Linnaeus: loc. 6, (7 ♂, peculiarly brick-red coloured).
 (24) *Orthetrum brunneum* (B. de Fonscolombe): loc. 4, 6, 17, 26.
 (25) *O. anceps* (Schneider): loc. 17 (♀).
 (26) *O. cancellatum* (Linnaeus): loc. 23 (numerous tandems).
 (27) *O. taeniolatum* (Schneider): loc. 2 (2 ♂, ♀).
 (28) *O. sabina* (Drury): loc. 1, 8, 10.
 (29) *Brachythemis fuscopalliata* (Selys): loc. 20 (few patrolling males).
 (30) *Crocothemis erythraea* (Brullé): ♂, ♀, loc. 2; specimens seen at locs 1, 6, 8, 19, 26, may be either this species or *C. servilia* (Drury).
 (31) *Sympetrum fonscolombi* (Selys): loc. 4, 7, 18.
 (32) *S. meridionale* (Selys): loc. 18.
 (33) *S. striolatum* (Charpentier): 8 (teneral), 34.
 (34) *Trithemis arteriosa* (Burmeister): loc. 19, 3 ♂ (first record for Turkey).
 (35) *T. annulata* (P. de Beauvais): loc. 1, 7, 18, 19, 20 (extremely common).

Discussion

In spite of the late spring of 1988, with prolonged cold and rainy weather, especially on the Anatolian plateau, not fewer than 35 dragonfly species were recorded during this field-trip. A fact of particular significance is the scarcity of dragonflies in the agricultural belt of the Adana peninsula, where pesticides are applied in generous quantities, almost around the year. This has now resulted in a much lower number of species, and, for each species, in much lower population densities than in 1972-1973 (cf. DUMONT, 1977). Important oriental faunal elements such as *Orthetrum sabina* and *O. taeniolatum* could still be found, but *Brachythemis fuscopalliata* was not seen again in the localities where it had been reported in the

seventies (DUMONT, 1972). It was only seen patrolling over an irrigation canal, in the area of the former Amik Gölü.

Perhaps the most salient record among the present series is the overwhelming commonness of *Platycnemis kervillei* in South-East Anatolia, making it the dominant springtime zygopteran in this area. It distinctly outnumbered *P. dealbata*, with which it co-occurred in several stations, and even the otherwise omnipresent *Ischnura elegans ebneri*. Records from Syria in summer are available (SCHNEIDER & MOUBAYED, 1985), but it stands beyond any doubt that its population peak falls in April-May-June. Figure 2 is a plot of all locality records for this species (Gemlik near Bursa in West Anatolia, included in DUMONT, 1977 is an error) and clearly defines its range as South of the Anatolian diagonal,

with some populations actually occurring on the diagonal. Its range boundary to the East (Iran) and South-East (Iraq) remains to be defined.

Of particular significance is also the rediscovery of *Ischnura intermedia* Dumont, not seen again since its original description in 1974. In revisiting the type locality, it was found that Halber Çay is not the correct name of the site, which is properly named Kalbur Çay (= Sieve river) or Kalburcu deresi (= the stream of the sieve-maker). No specimens were found in the type locality proper, but two females were captured on another streamlet, some 5 km W of the Kalbur Çay.

We stress the existence of a large population of *Coenagrion pulchellum* at Yay Gölü, on the Anatolian plateau. This population is remarkable by its melanic nature. In most males, the complete dorsum of the synthorax, head, and

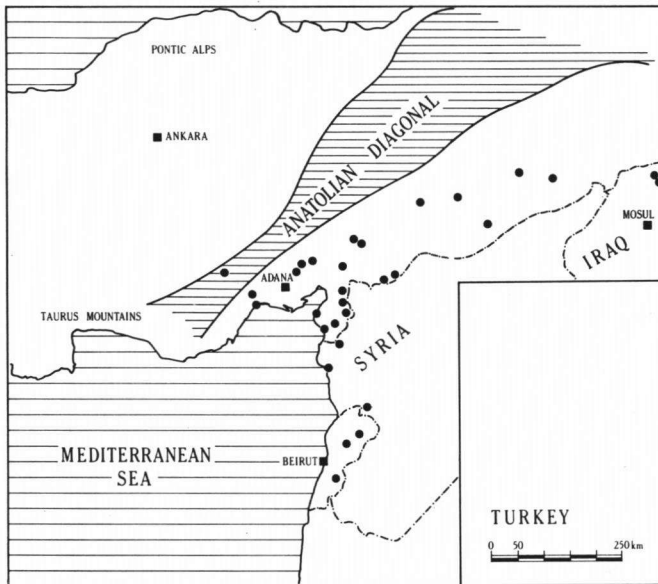


Fig. 2. Compiled distribution record (this paper plus literature records) for *Platycnemis kervillei* (Martin) in relation to the Anatolian diagonal.

abdomen (save for segment 8-9, which is largely blue) is black. On the wing, these insects were more reminiscent of a large *Erythromma* or *Pseudagrion* than of a *Coenagrion*.

Finally, we confirm *Trithemis arteriosa* as member of the Turkish dragonfly fauna. Its presence was suspected by Dumont (1977) and Demirsoy (1982) and is now substantiated by

the capture of three males et Reyhanli.

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